

CLAIMS

1. A method of operating a traffic scheduling computer system for planning journeys, each journey having a plurality of transit points, the method comprising:

receiving scheduling criteria including transit point data;

5 receiving map data, said map data comprising one or more routes, each route defined by a plurality of route-sections;

receiving forecast speed information for a traffic unit on each said route-section, the forecast speed for a given route-section depending on historical speed data for that route-section at a predetermined time on a particular day; and

10 planning a journey including a plurality of transit points in dependence on the scheduling criteria and forecast speed information.

2. A method as in claim 1, wherein at least a portion of the planned journey is re-planned according to re-scheduling criteria after the traffic unit has embarked upon

15 the journey.

3. A method as in claim 2, wherein said re-planning step is triggered in response to an unpredicted traffic event or operational failure.

20 4. A method as in any preceding claim, wherein one or more of said planning or re-planning steps depends on unpredictable event data.

5. A method as in claim 4, wherein said unpredictable event data comprises live traffic reports.

25 6. A method as in claim 4 or 5, wherein said unpredictable event data comprises data derived from live traffic monitoring.

7. A method as in any preceding claim, wherein a first journey solution is determined in a first algorithm processing step and an improved journey solution is determined in a further algorithm processing step.

5 8. A method according to any preceding claim, wherein said scheduling criteria comprise one or more of: availability data; distance data; time data; depot data; customer data; and product data.

9. A method according to claim 8, wherein said availability data comprises
10 availability data for one or more of: a prime mover; a trailer; and a driver.

10. A method as in any of claims 3 to 9, wherein unpredictable events are categorised according to a geographic region in which they occur and information on the unpredictable event is communicated to traffic units associated with a relevant
15 geographical region.

11. A method as in any preceding claim, wherein said forecast speed information for a route-section is recorded and compared with actual speed data for that route-section in order to provide a measure of reliability.
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12. A method as in any preceding claim, wherein said forecast speed information for a route-section is recorded and compared with actual speed data for that route-section in order to feedback an input to the traffic scheduling system.

25 13. A method as in any preceding claim, wherein historical speed data is acquired by means of floating vehicle data collection units or other mobile data collection means.

14. A method as in any of claims 3-13, wherein live traffic monitoring is performed by means of floating vehicle data collection units or other mobile data collection means.

5 15. A method as in claim 13 or 14, wherein a floating vehicle probe is selectively activated for monitoring based on a probability of the traffic unit carrying the probe being on a predetermined route-section.

10 16. A computer program product comprising program code means adapted to control the method of claim 1.

17. A computer system for scheduling traffic capable of planning journeys each having a plurality of transit points, the system comprising:

15 means for receiving scheduling criteria including transit point data and map data, said map data comprising one or more routes, each route defined in terms of a plurality of route-sections;

a data repository comprising historical speed data for each route-section, historical speed data for a particular route-section being represented for a predetermined time on a particular day;

20 means for generating forecast speed information for a traffic unit on each said route-section based on said historical speed data; and

processing means for planning a journey including a plurality of transit points in dependence on said scheduling criteria and forecast speed information.